



calculo

limites



Calculo Tarea Plataforma.

por

Aproximación

$\lim_{x \rightarrow 3} \frac{x-3}{x+1}$

2.9	2.99	2.999	3	3.1	3.01
0.025	-0.025	-0.0025	0	0.025	0.025

$\lim_{x \rightarrow 2} \frac{2x-1}{x^2-3}$

0.9	0.99	0.999	1	1.01	1.001
0.65	0.48	0.478	0.5	0.67	0.651

por

Factorización

$\lim_{x \rightarrow 4} \frac{x^2-16}{x-4} = \frac{a^2-b^2}{a-b} = a+b = \frac{(x-4)(x+4)}{(x-4)}$
 $x \rightarrow 4 = (x+4) = (4+4) = 8$

$\lim_{x \rightarrow 2} \frac{3-x}{x^3-27} = \frac{(3-x)}{(x-3)(x+3)(x-3)} = \lim_{x \rightarrow 2} \frac{(x+3)}{(x+3)} = \frac{(2+3)}{5} = 5$

$\lim_{x \rightarrow 2} = (x+3) = (2+3) = 5$

Norma



por Factorización

Continuación:

$\lim_{x \rightarrow 2} \frac{x^2+5x+6}{x+2} = \frac{(x+5)(x+1)}{(x+2)}$

$\lim_{x \rightarrow 2} = (x+5) = (2+5) = 7$

$\lim_{x \rightarrow 6} \frac{2x^2-3x-2}{x-1} = \frac{(2x-x)(x-1)}{(x-1)}$

$\lim_{x \rightarrow 6} = (2x) = (2-5) = -3$

LIMITES AL

Infinito

$\lim_{x \rightarrow \infty} \frac{3x+2}{x+1} \Rightarrow \frac{3(\infty)+2}{(\infty)+1}$

$\frac{3x}{x} + \frac{2}{x} = \frac{3 + \frac{2}{\infty}}{1 + \frac{1}{\infty}} = \frac{3+0}{1+0} = 3$

$\lim_{x \rightarrow \infty} \frac{x^2+2}{x+1} \Rightarrow \frac{\frac{x^2}{x^2} + \frac{2}{x^2}}{\frac{x}{x} + \frac{1}{x^2}} \Rightarrow \frac{1+1}{1+1}$

